

CLAIMS

1. A developer cartridge for containing a developer and for delivering the developer to a developer hopper of an electro-photographic machine, the developer cartridge comprising:

a developer containment portion including a first portion having an at least partially closed volume configured to contain the developer and a second portion adjacent the first portion and having an opening configured to deliver the developer to the developer hopper;

a sealing gasket disposed adjacent the second portion of the developer containment portion and surrounding at least a portion of a circumference of the opening; and

a first cover disposed adjacent the second portion of the developer containment portion and positionable between an open position for delivery of the developer and a closed position for preventing delivery of the developer, wherein the sealing gasket contacts the first cover to prevent undesired leakage of the developer therebetween.

2. The developer cartridge according to claim 1, further comprising:

a cover channel disposed adjacent to and integral with the second portion of the developer containment portion, wherein a portion of the first cover is disposed in the cover channel.

3. The developer cartridge according to claim 2, wherein the cover channel comprises a C-shaped channel.

4. The developer cartridge according to claim 3, further comprising:
a second cover disposed in the cover channel adjacent to the exterior of the developer cartridge and positionable between an open position and a closed position, the second cover cooperating with the first cover such that positioning the second cover in the open position forces the first cover into the open position.

5. The developer cartridge according to claim 4, wherein the first and second covers include corresponding first cooperating features.

6. The developer cartridge according to claim 5, wherein the corresponding first cooperating features include cooperating stepped portions on the first and second covers.

7. The developer cartridge according to claim 4, wherein the second cover cooperates with the first cover such that positioning of the second cover in the closed position forces the first cover into the closed position.

8. The developer cartridge according to claim 7, wherein the first and second covers include corresponding second cooperating features.

9. The developer cartridge according to claim 8, wherein the corresponding second cooperating features include a corresponding void and a protrusion.

10. The developer cartridge according to claim 9, wherein the first cover includes the protrusion and the second cover includes the void.

11. The developer cartridge according to claim 10, wherein the protrusion is configured to unlock a shield member of the developer hopper that permits access to an interior thereof.

12. The developer cartridge according to claim 11, further comprising:
a sealing gasket channel disposed in the second portion of the developer containment portion, wherein the sealing gasket is disposed in the sealing gasket channel.

13. The developer cartridge according to claim 4, further comprising:
a pull handle operatively connected with the second cover such that pulling of the pull handle positions the second cover in the open position.

14. The developer cartridge according to claim 13, wherein the pull handle comprises a U-shaped connecting portion connected with the second cover and a handle portion operatively connected with the connecting portion.

15. The developer cartridge according to claim 14, wherein the handle portion comprises at least one of a T-shape and a thumb opening-shape.

16. A developer cartridge for containing a developer and for delivering the developer to a developer hopper of an electro-photographic machine, the developer cartridge comprising:

a developer containment means including a means for containing the developer and a means for delivering the developer to the developer hopper;

a means for sealing disposed adjacent the means for delivering the developer;
and

a first cover means disposed adjacent the means for delivering the developer
and positionable between an open position for delivery of the developer and a closed
position for preventing delivery of the developer, wherein the means for sealing
contacts the first cover to prevent undesired leakage of the developer therebetween.

17. A method for delivering a developer contained in a developer cartridge to
a developer hopper of an electro-photographic machine, the method comprising:

directly moving a first cover from a closed position to prevent delivery of the
developer to an open position to deliver the developer; and

indirectly moving a second cover in contact with the developer from the
closed position to the open position via first cooperating features of the first and
second covers.

18. The method according to claim 17, wherein the first cooperating features
comprises stepped portions.

19. The method according to claim 18, further comprising:

directly moving the first cover from the open position to the closed position;
and

indirectly moving the second cover from the open position to the closed
position via second cooperating features of the first and second covers.

20. The method according to claim 19, wherein the second cooperating features comprise a void and a protrusion.

21. The method according to claim 19, further comprising:
compressing a sealing gasket by cooperation of the first cooperating features when the first and second covers are moved from the open position to the closed position.

22. The method according to claim 21, further comprising:
decompression of the sealing gasket by cooperation of the first cooperating features when the first and second covers are moved from the closed position to the open position.